



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,518	12/28/2001	Robert B. Hope	ULB-003CV	8646
7590 Kenneth J. LuKacher, Esq. South Winton Court Suite 204 3136 Winton Road Rochester, NY 14623				
04/29/2011				
EXAMINER				
REDMAN, JERRY E				
ART UNIT		PAPER NUMBER		
3634				
MAIL DATE		DELIVERY MODE		
04/20/2011		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/033,518

Applicant(s)

HOPE, ROBERT B.

Examiner

Jerry Redman

Art Unit

3634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-040)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

A Technology Center Director has authorized the reopening of prosecution in this application as indicated by the signature below.

/Katherine Matecki/

Director, Technology Center 3600

A new non-final action follows.

The status of the claims is as follows: Claims 1-10 are pending.

Claims 1-10 are herein addressed below.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites "the material", but as it depends from claims 1 and 3, both "recycled elastomeric material" and "virgin elastomeric material" have been recited, so the antecedent basis is unclear.

Claim 5 recites "which exposes a space thereof" on line 3. It is not clear what space is exposed—a space of the core, the seal, or the wheel. Also, line 2 discloses "elements" but line 3 refers to 'said element' [singular] -- which element is applied?

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

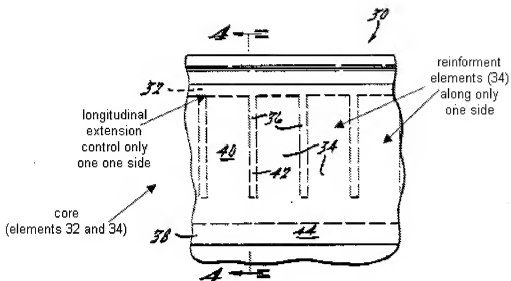
Claim 5 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Examiner cannot find any explanation of how the [reinforcing and longitudinal control] element is applied through an exposed space as the wheel rotates and that the elements are attached to said core in said space after application (of the elements???). In particular, 'the space' is unclear and thus applying said element thru the space and attaching the elements in said space is not enabled.

Claim Rejections - 35 USC § 102

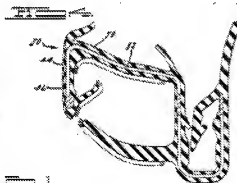
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 5, 7, and 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Jackson (4,937,126). As shown below, Jackson (4,937,126) discloses a weather seal (10) comprising a core (32 and 34) with a longitudinal extension extending along only one side (the top/upper side in the figure below) and a plurality of reinforcing elements (34) extending along only one side of the core. Marked up Jackson Fig 3 is below:



Accordingly, a method is provided of making a flange cover for attachment to a vehicle flange including the steps of forming a core member 32 having a plurality of longitudinally spaced clip members 34 with a plurality of apertures 36 between the clip members 34; extruding an outer layer 38 of elastomeric material about the core member 32; optionally grinding the outer layer 38 to reduce the height of any ridges thereon and extruding a cover layer 44 over the outer layer to form a smooth continuous planar outer surface 40.



Note that Fig 4 is a cross section taken at lines 4—4 of Fig 3, marked up above.

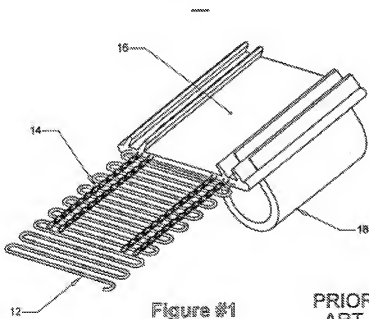
[As noted by the Board's decision on 8/31/2010, claims 5-7 and 9-10 are directed towards a weather seal and not the process per se and thus the rejection is directed towards the article per se, therefore the patentability of such claims depends upon the product and not its method of production. *In re Thorpe*, 777 F.2d 695,698 (Fed. Cir. 1985)] The Jackson weatherstrip could have been produced by attaching the core 32 and elements 34 by chemical bonding with adhesive, encapsulation, or fusion bonding.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson (4,937,126) in view Applicant's Admitted Prior Art (AAPA) Figure 1 (page 1, third paragraph, and page 2, first paragraph). Jackson (4,937,126) fails to provide the core to be formed of a metal wire loop. AAPA Figure 1



PRIOR
ART discloses a continuous metal

wire loop forming the core. Polyester strands 14 serve as longitudinal control elements. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the core of Jackson ('126) with a continuous wire loop and polyester strand elements as taught by AAPA Figure 1 and the specification as per: .

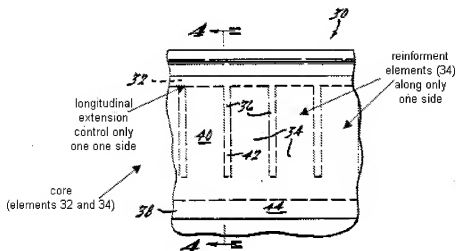
carrier 12 is a continuous succession of loops formed of steel wire. Strands of multifilament polyester yarn 14 are knitted onto the loops and extend longitudinally on the loops. These yarns provide longitudinal reinforcement elements, which limit the longitudinal extendibility of the weather seal 10, without limiting the compressibility and

since a single wire loop is cheap to manufacture into an extruded weather seal.

Furthermore, the weather seal of Jackson ('126) would operate equally as well with the core formed of a continuous wire loop and polyester elements.

Claims 1, 3, and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson (4,937,126) in view of Iwasa et al JP408012815A, hereafter Iwasa. . Jackson ('126) disclose discloses a weather seal (10) comprising a core (12), a first elastomeric material encapsulating the core (12, column 1, lines 44-46), and a second/outer layer (column 1, lines 46-51, also column 2, lines 54-61 disclose two layers encapsulating a core member 32 in a different embodiment). With respect to claim 8, one or more reinforcement elements extending along only one longitudinal side are shown in the Figure below or the reinforcement elements 34 which extend along

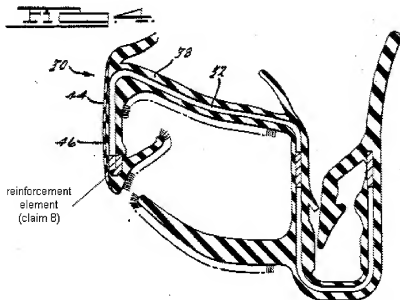
only one side are shown in the Figure 3 and 4 below:



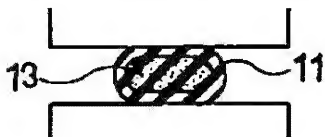
However, Jackson ('126) fails to disclose the first material to be recycled elastomeric material and the second/outer layer to be virgin elastomeric material, teaching only that the outer layer 38 is an elastomeric material that can be coated with a cover layer 44 which can be polypropylene or polyethylene, both elastomeric polymers:

ever, in accordance with the method of the present invention, a smooth outer surface is provided by covering the outer layer 38 at surface portion 46 with a cover layer 44 of elastomeric material which fills the valleys and forms a smooth continuous planar outer surface 40. Cover layer 44 can be comprised of, for example, polypropylene or polyethylene. Cover layer 44 has a thickness greater than the depth of the valleys 44. Thus, the "hungry horse" appearance is eliminated.

Accordingly, a method is provided of making a flange cover for attachment to a vehicle flange including the steps of forming a core member 32 having a plurality of longitudinally spaced clip members 34 with a plurality of apertures 36 between the clip members 34; extruding an outer layer 38 of elastomeric material about the core member 32; optionally grinding the outer layer 38 to reduce the height of any ridges thereon; and extruding a cover layer 44 over the outer layer to form a smooth continuous planar outer surface 40.



lwasa teaches a seal component (abstract) with a recycled vulcanized waste rubber component 13 that is coated (thus forming the outer layer 11) with new unvulcanized rubber that is pressure molded to produce a seal with excellent sealing properties and visual appearance (abstract). Note the figure below clearly showing virgin layer 11 *encapsulating* the recycled substrate 13.




The recycled material is cured EPDM (cured as it is used, vulcanized, and ground, and EPDM is taught in paragraph [0020-0021 and 0040-0041 of the attached translation] --teaching that the recycled and new layers can be the same type rubber or

Art Unit: 3634

different rubbers, and that rubbers used can be those in Tables 1 and 2, which include EPDM.

vulcanize (vul'kan-iz')

To harden rubber by combining it with sulfur or other substances in the presence of heat and pressure. Vulcanization gives rubber strength, resistance, and elasticity.

 The American Heritage® Science Dictionary Copyright © 2005 by Houghton Mifflin Company. Published by Houghton Mifflin Company. All rights reserved.

[0020] Here, although combination of the rubber seed of vulcanization pulverization rubber and unvulcanized new rubber is made into rubber of the same kind, it may usually be different-species rubber. In the case of different-species rubber, unvulcanized new rubber is non-diene system sulfur vulcanized gum, and it is desirable for vulcanization pulverization rubber to be non-diene system sulfur vulcanized gum. or the polarity of unvulcanized new rubber -- the polarity of vulcanization pulverization rubber -- abbreviated -- an equivalent thing is desirable.

[0021] displaying the list of combination on Table 1 --

[0040] In the case of the combination which set unvulcanized new rubber to NBR, as the vulcanization pulverization rubber EPDM, the beautiful cast in which the NBR layer by the side of the surface was also vulcanized enough was obtained. The result of the physical-properties examination was as follows. [0041] hardness (JIS-A): -- 71 and tensile-strength (MPa): 11.0 -- it being extended, and vulcanization pulverization rubber being set to NBR and, (%): 350, surface relative roughness (Rz): 6, however when reverse, [rubber] In the case of the combination which set unvulcanized new rubber to EPDM, measurement of various physical properties which poor vulcanization generated (stickiness is the remainder) was not completed in the EPDM layer by the side of the surface.

新ゴム 旧ゴム	EPDM (イウ)	EPDM (P/O)	NBR	SBR	CR	ACM	NBR	NBR /PVC
EPDM (イウ)	○	○	×	×	×	△	×	×
EPDM (P/O)	○	○	○	○	△	△	△	△
NBR	○	○	○	○	△	△	△	△
SBR	○	○	○	○	○	△	△	△
CR	○	△	△	○	○	○	○	○
ACM	△	△	△	△	○	○	○	○
NBR	○	△	△	△	○	○	○	○
NBR /PVC	○	△	△	△	○	○	○	○

While Iwasa ("tubed extrusion thing 11") and Jackson

A flange cover for attachment to a vehicle includes a core member comprising a plurality of longitudinally spaced clip members. A first elastomeric layer is disposed about the core member. A second elastomeric layer covers the first elastomeric layer to form a smooth continuous planar surface.

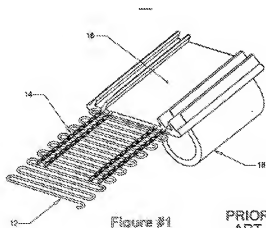
The flange cover is made by the method of first forming a core member having a plurality of longitudinally spaced clip members with a plurality of apertures between the clip members; then extruding a first layer of elastomeric material to encapsulate the core member; forming the core member and outer layer to a predetermined configuration thereby forming an outer surface having ridges and valleys; grinding the ridges of the outer layer to a height less than their original height; and extruding an elastomeric cover layer over the ground outer layer to form a substantially smooth outer surface.

both teach extruding the elastomeric substrate/coating, the method of forming a product is not germane to the patentability of the product as long as the final product could be formed in that manner. The seal could be formed by tapes formed by extrusion or molten form.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a first inner layer formed of recycled material such as cured EPDM and the outer layer formed of virgin material as taught by Iwasa since recycled elastomers are cheaper raw materials and readily available, including used EPDM, with the added cache of allowing marketing as an environmentally-friendly product, while the outer virgin layer provides a uniform enhanced smoother outer surface. Furthermore, the weather seal of Jackson ('126) would operate equally as well with the inner layer formed of EPDM material and the outer layer formed of virgin elastomeric material.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson (4,937,126) and Iwasa as applied to claim 1 above, and further in view of Applicant's Admitted Prior Art (AAPA) Figure 1 (page 1, third paragraph, and page 2, first paragraph). Jackson in view of Iwasa as applied to claim 1 fails to provide the core to be formed of a wire. AAPA Figure 1 discloses a continuous wire loop forming the core. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the modified weather seal and specifically the core of Jackson ('126) with a continuous wire loop as taught by AAPA Figure 1 (see page one of the specification) since a single wire loop is cheaper and easier to manufacture into an extruded weather seal. Furthermore, the weather seal of Jackson ('126) would operate equally as well with the core formed of a continuous wire loop.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Iwasa, JP408012815A. AAPA discloses a weather seal (10)



PRIOR
ART

comprising a core (12), and elastomeric

material encapsulating the core (16)

A typical weather seal 10 utilizing a wire carrier 12 and the internal structure thereof is shown in Fig. 1. The figure shows the carrier in a flat condition for convenience of illustration. The actual final product has the carrier formed into a "U" shape. The wire carrier 12 is a continuous succession of loops formed of steel wire. Strands of multifilament polyester yarn 14 are knitted onto the loops and extend longitudinally on the loops. These yarns provide longitudinal reinforcement elements, which limit the longitudinal extendibility of the weather seal 10, without limiting the compressibility and bendability thereof so as to provide the requisite "U" shape. Typically the wire carrier, preformed into loops and with knitted yarn elements attached, is shipped and stored in rolls of several hundred lineal feet. A roll is placed behind an extrusion line. The carrier is dispensed and rolls formed into a "U" shape appropriate for entry to an extrusion die. The carrier is fed into the die and dense virgin or uncured EPDM rubber is extruded and forms an encapsulation 16 on the carrier. A second extruder also feeds the same die and creates a seal shape profile element of foam or low-density EPDM 18 which is extruded on the dense rubber portion. The extruded foam profile element 18 is shown as a bulbous portion which contributes to the sealing action of the weather seal. After extrusion the composite product is cured and cut to length for installation by the automotive manufacturer.

However, AAPA is silent with respect to a substrate of recycled elastomeric material encapsulating said core and an outer covering of virgin elastomeric material providing a sealing surface encapsulating said core and substrate. . .

Iwasa, JP408012815A discloses a weather seal (abstract : purpose) comprising a substrate 13 formed of recycled elastomeric material substrate and an encapsulating outer layer 11 formed of virgin elastomeric material that encapsulates the substrate, so

that the cheaper recycled material is not in the outer sealing surface

PURPOSE: To efficiently recycle waste rubber by crushing waste rubber to obtain crushed vulcanized rubber, coating it with a new unvulcanized rubber, conducting vulcanization pressure molding of the resultant coated rubber to produce a regenerated rubber molding excellent in sealing properties and visual appearance and suitable for a seal component, an automobile part, etc.

CONSTITUTION: Waste rubber of a vulcanized non-diene rubber, etc., is crushed to prepare a crushed vulcanized rubber and the resultant crushed vulcanized rubber is coated with a new unvulcanized rubber. The coated rubber is pressure-molded in that state to form a regenerated rubber molding. Thus, the waste rubber is recycled. In addition, the particle diameter of the crushed vulcanized rubber is preferably 0.001 to 1mm, especially 0.05 to 0.5mm.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify AAPA's weatherseal to replace the all-one-virgin-elastomeric-material 16 that encapsulates the wire core¹² of AAPA with an inner substrate formed of recycled EPDM material and an outer encapsulating cover layer formed of virgin material as taught by Iwasa since recycled material is cheaper and less expensive to manufacture and the outer virgin covering layer provides a new and enhanced smoother outer surface.

Further Re claim 2: AAPA teaches the core is a wire loop carrier in Fig 1 above.

Further regarding claim 3: Iwasa teaches that the recycled (pulverization) rubber is a vulcanized non-diene rubber such as EPDM, per

{0029}(2) , [the recycling method of the waste rubber of this invention concerning Claim 2] [by making said vulcanization pulverization rubber into non-diene system sulfur vulcanized gum (for example, EPDM), and making unvulcanized new rubber into diene system rubbers (for example NR, SBR, NBR, etc.) in Claim 1,] The vulcanization system medicine (it has polarity) which remains in the non-diene system sulfur vulcanized gum which is vulcanization pulverization rubber shifts to the unvulcanized new rubber side which is diene system rubber

Examiner notes that the intermediate form of the structure is not germane to the patentability of a final product. The weatherseal could have been made with the

elastomeric substrate of molten or semi-molten tapes, but it is the final product that determines patentability. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process

Further re claim 4: the weatherseal of AAPA in view of Iwasa could be made by having the material (see 112, 2nd above; examiner is interpreting 'the material' as the substrate material) extruded to form tape or tapes. In a product-by-process claim, it is only the final product, and not how it is made, that determines patentability as long as the product made by the claimed process would be the same or obvious from the AAPA in view of Iwasa product. Note that applicant's specification teaches extrusion of the carrier and substrate and then further extrusion to provide the virgin coating, or alternately sandwiching the carrier and reinforcement between 2 tapes or alternately that a single tape can be used and compressed into a carrier, along with both secondary encapsulating processes and embedding reinforcement in tapes that can be compressed together or glued together, as well as numerous methods of attaching the reinforcements to the carrier. All result in the same final structure.

MPEP 2113 [R-1] Product-by-Process Claims

PRODUCT-BY-PROCESS CLAIMS ARE NOT LIMITED TO THE MANIPULATIONS OF THE RECITED STEPS, ONLY THE STRUCTURE IMPLIED BY THE STEPS

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-

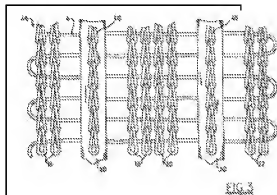
process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) (citations omitted) "[T]he lack of physical description in a product-by-process claim makes determination of the patentability of the claim more difficult, since in spite of the fact that the claim may recite only process limitations, it is the patentability of the product claimed and not of the recited process steps which must be established. We are therefore of the opinion that when the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claimed in a product-by-process claim, a rejection based alternatively on either section 102 or section 103 of the statute is eminently fair and acceptable. As a practical matter, the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons therewith." In re Brown, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972).

Claims 5-7 and 9-10 are rejected as obvious over AAPA in view of McCutchan, Jr. United States Patent number 6150003. AAPA teaches a weather seal comprising a wire loop core 4 but is silent on the specifics of the reinforcing element. As noted above, the process of making an apparatus is not germane to the apparatus as long as the referenced apparatus could have been made using the claimed process. McCutchan teaches a weatherseal with reinforcing tape 50 or 30, which serves to prevent longitudinal elongation and it is on one side only of the core 4. Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of

AAPA and McCutchan before him at the time the invention was made, to modify AAPA to include reinforcement tapes or ribbons on one side of the core, in order to obtain a seal that can be extruded without weaving or sewing. One would have been motivated to make such a combination because a strong, non-stretchable seal would result using automated manufacturing processes. As to the exact process, examiner notes that applicant is claiming an apparatus, and in an apparatus claim, the method of forming and order of steps is not germane to patentability of the apparatus, as long as the apparatus can be formed by the claimed method. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process

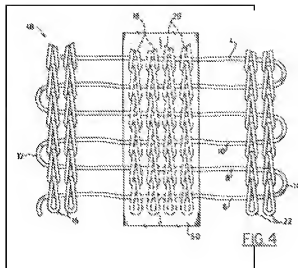
present invention overcomes this shrinkage problem by preventing the spacing between generally parallel limbs 6, 8, 10 from increasing during extrusion processes.

A ribbon or tape 30 containing a stiffening element, such as, but not limited to fiberglass or carbon threads, along its longitudinal axis, is introduced and becomes a part of the wire carrier, as shown in FIGS. 2-5. In FIG. 2, a relatively



....
in FIG. 1. The improved carrier 46 is provided with a reinforcing ribbon 30 positioned between warp threads 16 and warp threads 18, and a reinforcing ribbon 30 positioned between warp threads 20 and warp threads 22. Thus, the larger wire carrier 46 is provided with elongation prevention mechanisms evenly distributed about the width of the carrier 46. Although two specific embodiments of wire carriers and placement of reinforcing ribbons 30 are shown, it should be understood that alternate arrangements of warp threads and ribbons are within the scope of the present invention. For example, any or all of warp threads 16, 18, 20, and 22 could be used to secure ribbon 30 to the wire 4.

Turning now to FIG. 4, an alternate preferred embodiment of the present invention is shown. In this embodiment, the wire carrier 48 is shown with warp threads 16, 18, 20, and 22 as in FIG. 1, with warp threads 18 and 20 shown in phantom. Reinforcing tape 50 is positioned over warp threads 18 and 20 and between warp threads 16 and 22. Reinforcing tape 50 may be adhesively secured to the warp threads 18 and 20. Alternatively, a ribbon 30 (not shown) could be adhered to the wire weft 4 such as by a latex covering. Although not shown, warp threads 16 and 22 could also be covered by separate reinforcing tapes 50. Also, any arrangement of warp threads used and subsequently covered by tape 50 would be within the scope of this invention. The reinforcing tape 50 prevents the wire carrier 48 from elongating during processing and prior art wire carriers can be manufactured by simply adding a taping step as opposed to changing any pre-existing manufacturing steps.



Re claim 6: AAPA has a core that is a wire loop (wire carrier 12, AAPA) and McCutchan also has a wire core 4 (wire weft 4 in Column 5 lines 15-24 copied in paragraph immediately above). The elongation control and reinforcing elements can be polyester yarn 14 (AAPA, see section copied with respect to claim 1 above) or carbon strands or threads (McCutchan, Column 5, lines 12-15 copied above and also as below:

It is another object of the present invention to provide a ribbon usable as an elongation prevention mechanism and securable to a wire carrier.

- 5 It is a further object of the present invention to provide stiffening elements, such as fiberglass or carbon fiber threads, along the longitudinal axis of the ribbon.

A ribbon or tape 30 containing a stiffening element, such as, but not limited to fiberglass or carbon threads, along its longitudinal axis, is introduced and becomes a part of the wire carrier, as shown in FIGS. 2-5. In FIG. 2, a relatively

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have made the reinforcement elements of polyester or fiberglass fibers, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. At the time of the invention, one of ordinary skill in the art would have good reason to pursue the known options within his or her technical grasp, as the selected option was one of a finite number of available reinforcing fibers, as taught in the prior art. All the claimed elements were known in the prior art as evidenced above, and one of ordinary skill in the art could have combined the elements as claimed, or substituted one known element for another, using known methods with no change in their respective functions. Such a combination would have yielded predictable results to one of ordinary skill in the art at the time the invention was made, since the elements perform as expected and thus the results would be expected. Such a combination, to one of ordinary skill in the art, would have a reasonable expectation of success, and would be based on ordinary skill and common sense at the time the invention was made.

Re claim 7: Chemical bonding / Adhesive attaching of the extension control and reinforcing elements 50 to the wire core is taught in McCutchen Column 5:

Reinforcing tape 50 may be adhesively secured to the warp threads 18 and 20. Alternatively, a ribbon 30 (not shown) could be adhered to the wire weft 4 such as by a latex covering. Although not shown, warp threads 16 and 22 could also be covered by separate reinforcing tapes 50. Also, any arrangement of warp threads used and subsequently covered by tape 50 would be within the scope of this invention. The reinforcing tape 50 prevents the wire carrier 48 from elongating during processing and prior art wire carriers can be manufactured by simply adding a taping step as opposed to changing any preexisting manufacturing steps.

It would have been considered

obvious to one of ordinary skill in the art, at the time the invention was made, to have attached the elements by chemical bonding / adhesive as this is a common known manufacturing process and it would not require specialized materials or equipment. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process

Re claims 9-10: The final product has the longitudinal elements attached to the core. The method of attachment is not germane to patentability, as the weather seal of AAPA in view of Iwasa could have the elements attached by fusion bonding or encapsulation (Column 5, copied above). If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Iwasa, as applied to claim 3 above, and further in view of McCutchen. The

elastomeric substrate and covering clearly encapsulate the core 4 and elements 14 of AAPA. Were the elements 14 replaced by the elements (tapes 30 or 50) of McCutchen as described above, they too would necessarily be encapsulated by the elastomeric substrate and covering. Note that applicant calls the elastomeric coating/ substrate/ covering a tape, not to be confused with the reinforcement elements of McCutchen, which are also called tapes. Note that McCutchen describes attaching/covering the elements (tapes 30 or 50) by "latex coating" or adhesive bonding or encapsulation.

Reinforcing tape 50 may be adhesively secured to the warp threads 18 and 20. Alternatively, a ribbon 30 (not shown) could be adhered to the wire weft 4 such as by a latex covering. Although not shown, warp threads 16 and 22 could also be covered by separate reinforcing tapes 50. Also, any arrangement of warp threads used and subsequently covered by tape 50 would be within the scope of this invention. The reinforcing tape 50 prevents the wire carrier 48 from elongating during processing and prior art wire carriers can be manufactured by simply adding a taping step as opposed to changing any preexisting manufacturing steps.

⁵ If the product in the product-by-

process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process

Response to Arguments

While no explicit arguments have been made by applicant after the decision of the BPAAI, examiner will respond to an argument made in the appeal brief filed 8/25/2005 with respect to Iwasa. Applicant argued that Iwasa has recycled rubber OVER virgin rubber, the opposite of the claimed invention:

The rejection on Keys in view of Iwasa under 35 U.S.C. §103(a) is in error since there is no showing of a substrate layer of recycled elastomeric material which is encapsulated by a covering of virgin elastomeric material, let alone the use of tapes of the recycled material, and the antithesis of what is claimed is shown in Iwasa, i.e., recycled elastomeric material (rubber) is used over a substrate of virgin rubber. Applicant claims quite the opposite relationship. Moreover, the references cited in the Final Rejection are

However, as cited above and as is clear in the translated abstract and the translated claims, Iwasa creates a weatherseal by forming a core, inner portion of recycled, ground rubber, citing EPDM as an example of the recycled rubber, and covers this core with a layer of virgin rubber. Examiner has provided new references on the seal and core reinforcement structure. While examiner agrees that Iwasa does not teach the same detailed process steps, Iwasa, AAPA, and Jackson all teach that an extrusion process is used at some point in forming their weatherseal. Further, since applicant is claiming the seal and not the method of making the seal, as long as the final product seal can be made by the described process, the seal claim is considered to be met.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Several patents which disclose weather seals and their specific compositions similar to that of the applicant's invention have been cited.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry Redman whose telephone number is 571-272-6835. The examiner can normally be reached on M-TH from 8 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Mitchell, can be reached on 571-272-7069. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Katherine Mitchell/
Supervisory Patent Examiner, Art Unit 3634

Jerry Redman
Primary Examiner
Art Unit 3634

/Jerry Redman/
Primary Examiner, Art Unit 3634.